

8200148

# THE COMPLETED STRATES OF ANTERIOR

TO ALL TO WHOM THESE PRESENTS SHALL COME;

# Dure-Seed Testing, Inc.

Withereas, there has been presented to the

# Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREINTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUB EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT TARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICAND(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF CIGHTERN YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC D OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXOTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, ORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT 142, AS AMENDED, 7 U.S.C. 2321 ETYSEO)

ANNUAL RYEGRASS

'WA-77'

In Lestimony Entereot, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 31st day of May in the year of our Lord one thousand nine

the year of our Lord one thousand nin hundred and eighty-four.

Attest:

Xerrich IV Evil.
Commissioner

Plant Variety Protection Office

Livestock, Meat, Grain & Seed D.

Agricultural Marketing Service

The R Block Secretary of Agriculture

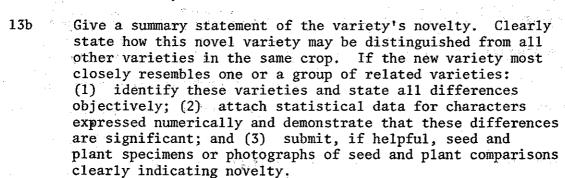
				7-)	VP
	UNITED STATES DEPARTME AGRICULTURAL MARI LIVESTOCK, POULTRY, GRA	KETING SERVICE VIN & SEED DIVISION			FORM APPROVED OMB NO. 40-R3822
AP INS	PLICATION FOR PLANT VARIE TRUCTIONS: See Reverse.	TY PROTECTIO	N CERTIFICATE	be issued unless a c has been received (5	lant variety protection may ompleted application form U.S.C. 553).
1a	. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAM	E 884	FOR OFFIC	IAL USE ONLY
	WA-77	WA-7	7 5/9/84	PV NUMBER 820	0148
2.	KIND NAME	3. GENUS AND SPE	CIES NAME	FILING DATE	TIME A.M.
	Annual ryegrass	Lolium multif	lorum	8/6/82 FEE RECEIVED	10:30 RXK
4.	FAMILY NAME (BOTANICAL)	5. DATE OF DETE	RMINATION	\$ <sup>500.00</sup>	8/6/82
	Gramineae	August 1, 198	30	\$ 250.00	_5/7/84
6.	NAME OF APPLICANT(S) Pure-Seed Testing, Inc.	<i>Code)</i> 73 Wes	tand No. or R.F.D. No., st G Street, P. cd, Oregon 9703	0. Box 449,	8. TELEPHONE AREA CODE AND NUMBER 503-981-7333
9.	IF THE NAMED APPLICANT IS NOT A PE ORGANIZATION: (Corporation, partnersh	RSON, FORM OF ip, association, etc.)	10. IF INCORPORAT DATE OF INCOR	ED, GIVE STATE AND PORATION	11. DATE OF INCOR- PORATION
12.	Corporation		Oregon		June 3, 1974
12.	NAME AND MAILING ADDRESS OF APPRALL PAPERS:  Dr. William A.  Hubbard, Oregon	Meyer, Pure-Se			
13.	CHECK BOX BELOW FOR EACH ATTACH	MENT SUBMITTED:	15.1		
	X 13A. Exhibit A, Origin and Bree	eding History of the	Variety (See Section 2	52 of the Plant Variet	v Protection Act )
	X 13B. Exhibit B, Novelty Statem		, (	,	, =
	X 13C. Exhibit C, Objective Descr	iption of the Variety	(Request form from	Plant Variety Protect	tion Office.)
	13D. Exhibit D, Additional Desc			•	
14a.	DOES THE APPLICANT(S) SPECIFY THAT SEED? (See Section 83(a). (If "Yes," answer	r SEED OF THIS VAR er 14B and 14C below.)	IETY BE SOLD BY VAR	RIETY NAME ONLY AS	A CLASS OF CERTIFIED
14b.	DOES THE APPLICANT(S) SPECIFY THAT LIMITED AS TO NUMBER OF GENERATI	T THIS VARIETY BE ONS?	14c. IF "YES," TO 14 TION BEYOND E	B, HOW MANY GENER	ATIONS OF PRODUC-
	X YES NO		X FOUNDATION	REGISTERED	X CERTIFIED
15a.	DID THE APPLICANT(S) FILE FOR PROTI	ECTION OF THIS VAF	RIETY IN OTHER COUL	NTRIES? YES	X NO (If "Yes," give
15b.	HAVE RIGHTS BEEN GRANTED THIS VA	RIETY IN OTHER CO	UNTRIES? TYES	NO (If "Yes."	give name of countries
	and dates.)		· . <b>-</b>		
		<u>:</u>	4		
16.	DOES THE APPLICANT(S) AGREE TO THE JOURNAL?	NO·	•		
17.	The applicant(s) declare(s) that a viable replenished upon request in accordance	sample of basic seed with such regulation	l of this variety will b ns as may be applicab	e furnished with the a	application and will be
	The undersigned applicant(s) is (are) the variety is distinct, uniform, and stable a 42 of the Plant Variety Act.	e owner(s) of this se s required in Section	xually reproduced no a 41, and is entitled to	vel plant variety, and o protection under the	believe(s) that the e provisions of Section
	Applicant(s) is (are) informed that false	representation here			enalties.
	7-27-82		Will	liam G. 9	nager
	(DATE)		(5	SIGNATURE OF APPLI	CANT)
	•				en 1

#### INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

## ITEM

- Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.



- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



#### EXHIBIT A.

#### ORIGIN AND BREEDING HISTORY OF WA-77 ANNUAL RYEGRASS

- 1. WA-77 annual ryegrass is an advanced generation synthetic derived from the progenies of 5 plant introduction germplasm sources and 2 clones selected from a pasture near Canby, Oregon. The plant introductions were PI 240732 (Italy), PI241912 (Italy), PI238939 (New Zealand), PI338939 (New Zealand), and PI238885 (France). The two selections made in 1975 near Canby, Oregon were QTB-3-3 and QTB-10-3. Parental clones were selected from the above 7 sources on the basis of their resistance to stem and crown rust, leaf spot resistance, tillering ability and acceptable seed yield. Two cycles of recurrent selection were conducted for the above trials near Hubbard, Oregon and 1 cycle of selection was conducted for cold hardiness near Burns, Oregon.
- 2. Breeder seed of WA-77 was produced from an isolated, space plant nursery of 124 selected seedlings from the original 7 germplasm sources. Seed propagation of WA-77 is limited to two generations of increase from breeder seed, one each of foundation and certified.
- 3. WA-77 is a stable, uniform variety. No off-type plants or variants have been observed in the reporduction or multiplication of WA-77 annual ryegrass.

# EXHIBIT B.

# NOVELTY STATEMENT ON WA-77 ANNUAL RYEGRASS

WA-77 annual ryegrass most closely resembles the variety Gulf. However, close comparisons show the two cultivars differ in a number of characteristics, as follows:

- 1. WA-77 is 5 days later in maturity (Table 1).
- 2. WA-77 is 22 cm shorter at maturity (Table 3).
- 3. The flag leaf width of WA-77 is 3 mm less (Table 4).

		FORM APPROVED: OMB NO. 40-R3712
FORM GR-470-36 (9-76) WC 555 J'000 SEED	U.S. DEPARTMENT OF AGRICULTUR AGRICULTURAL MARKETING SERV GRAIN DIVISION HYATTSVILLE MARYLAND 2078: OBJECTIVE DESCRIPTION OF CULT	S OF 10
	RYEGRASS	
NAME OF APPLICANT(S): MALM ANGELERA O	( <u>Lolium spp.)</u> Bokah eyet	VARIETY NAME OR TEMPORARY DESIGNATION
Pure-Seed Testing, Inc.	337 194 2 4 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	WA-77 annual ryegrass
ADDRESS (Street and No., or R.F.D. No., City	v. State, and ZIP Code)	FOR OFFICIAL USE ONLY
** ***********************************	Annual and a second a second and a second and a second and a second and a second an	PVPO NUMBER
Hubbard, Oregon 97032	т жил бүй түүлүү түү байгай тайман тайрарда, уулын татуулардынын туучулуунун түүлүү түү түүсүн түүлүү түүсүн т	8200148
number if either 99 or less or 9 or less. Descriptions	s of characters should represent those that are to	v. Place a zero in first box (e.g. 089 or 09) wher ypical for the variety. Ranges may be given also. Measured the adequately described in the form below. Append all
SPECIES:	ne compresso accompresso a superior estados a compressos accompressos	en e
1 4 HYBRID (of species)	n: includes Westerwoldicum) 2 = L. PERENN 5 = OTHER (Sp.	
PLOIDY:	a tina tanàna no mpiasa ataon taona isa na taona mpia na manana atao and ang manana atao atao atao atao atao a CENTRE	de transmission de contrata de mante en de mante en de mante en de mande de la company
1 = DIPLOID TARE THIS 2 = TETRAF	PLOID 3 OTHER (Sp	ET L'ENGTH NEARLY EQUÁL TO QUIER OLUMES ENL'ENGTH MUCH LONGER THAN OUTER
3. DURATION:		
1 = ANNUAL OR BIENNIAL 2 = SI	HORT LIVED PERENNIAL (3-4 years)	3 = PERENNIAL (more than 4 years)
1 - GULF 2 - WIMME	STANDARD CULTIVARS RA 62 3 = LINN	W YMM TEMPLH = PELO
· · · · · · · · · · · · · · · · · · ·	STWYTH S-23 7 = MANHATTA	
1- VERY EARLY 3 = EARLY	s from above for comparison:  DAYS EARLIER THAN	Table 1.
9 = VERY LATE	DAYS LATER THAN	<del></del>
5. MATURE PLANT HEIGHT (Use standard cu	Itivars from above) :	BOACH
1 2 7 cm. High	2 2 CM. SHORTER THAN	
Part   Carlo Mark   Carlo San		
AT COMATABLE BATHANA	STANDARD CULTIVAR	
6. PERCENT WINTER DAMAGE (estimated as	nercent of the area annearing dead) Like of	tandard cultivars from above for comparison:
The second secon		* · ·
PERCENT DAMAGE OF APPLI	REATION CULTIVAR Hubbard, 0	regon countyse edole above
PERCENT DAMAGE OF	STANDARD CULTIVAR	
7. TURF DENSITY Use standard cultivars fro		
TONGER THAN LUCION IN	III ALOVE:	
1 0 0 TILLERS PER 100 SQ. CM.		NDARD CUCTIVARS FROM ABOVE.
LESS TILLERS PER 100 SQ. C		AR
WW. STIKE LEWGTH (19 to But	· · · · · · · · · · · · · · · · · · ·	
5 0 MORE TILLERS PER 100 SQ.		AR
8. FLAG LEAF (at full growth) Use standard	cultivars from above:	Tables 2 C
2 3 CM. LENGTH (from ligule to tip		H (at widest point) ARTION CHEEN
CM. SHORTER THAN STEE YE	STANDARD CULTIVA	AR   1 = DEFLEXED   FLAG LEAF AT 3 = RECURVED   BOOT STAGE: 5 = HORIZONTAL   7 = SEMI-ERECT
CM. LONGER THAN	STANDARD CULTIV	9 = ERECT
MM, NARROWER THANSANS	The state of the s	and the state of t
MM WIDER THAN	STANDARD CULTIVA	orina terratura de la compositiva de l A R
		T. 8880488 - T.

FORM GR-470-36 (9-76)	£		PAGE 2 OF 3	
1 = GULF 44	2 = WIMMERA 62 6 = ABERYSTWYTH S-23	STANDARD CULTIVARS 3.= LUNN 7 = MANHATTAN	4 = PELO 8 = PENNFINE	
9. LEAVES: 18 11 11 11 11 11 11 11 11 11 11 11 11	Walio Carante	Samuel wide in the line		
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	EAVES SEMI-ROLLED (folded wi EAVES FOLDED IN YOUNG SHO	th rolled edges) DOTS	FOR STANDARD CONTRACTOR CONTRACTO	
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2 8 . 6 MM. SPIKE	LENGTH (tip to internode below	and the second s		
	THAN			
And the second	•	USE STANDARD	CULTIVARS FROM ABOVE	
	THAN	······ <b>山</b> )		
	PER TEN SPIKES (trimmed to into	ernode below lowest floret)	en en mengen et en en mengen mennet gewonde en	
	JGHTER PER TEN SPIKES THA JAMES DE WESTEDWARDER OFF		CULTIVARS FROM ABOVE	
MG. HEAV	ier per ten spikes than	· · · · · · · · · · · · · · · · · · ·	en e	
FLORETS PER	SPIKELET	7 8 8 3 8 4 3 8 6 6 18 <b>VA</b> F		
MG. HEAVIER PER TEN SPIKES THAN				
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12 ANTHER COLOR:	and the second s	The second secon	and provided the second of	
% PLANTS V	VITH WHITE ANTHERS	2 0 × PLANTS V	VITH YELLOW ANTHERS	
	VITH PURPLE ANTHERS		The state of the s	
13. ROOT AND PLANT CH	ARACTERS:			
% PLANTS W	VITH PROSTRATE GROWTH HA	BIT TO O SPLANTS	WITH FLURÖESCENT ROOTS	
1 0 0 %PLANTS W	WITH UPRIGHT GROWTH HABIT	· · · · · · · · · · · · · · · · · · ·		
14. SEED:	· ************************************	Various Arroro de cordasse		
9 0 6 MG. PER 1,0		8 MM TOTAL LENGTH OF 10	1 3. 7 MM. TOTAL WIDTH	

COMMENTS:

### EXHIBIT D.

## ADDITIONAL DESCRIPTION OF WA-77 ANNUAL RYEGRASS

WA-77 is a new, early maturing annual ryegrass with finer leaves, more tillering ability, and better recovery after mowing than Gulf (Tables 1,2,6). In closely mowed turf trials near Hubbard, Oregon WA-77 is showing better density and persistence in turf plots than Gulf annual ryegrass. In trials in the Netherlands, France, and Hubbard, Oregon WA-77 has displayed very good resistance to stem and crown rust. In winter overseeding trials at Mississippi State, MS WA-77 out yielded Gulf (Table 7).

# TABLE 1.

# HEADING DATES ON ANNUAL RYEGRASS SEED YIELD TRIALS NEAR HUBBARD & MONITOR, OR IN 1981 & 1982.

	50% HEADING DATES					
	1981 NEAR	1982 NEAR				
CULTIVAR	HUBBARD, OR	MONITOR, OR				
WA-77	5/25	5/25				
Gulf	5/19	5/20				
Marshall		6/1				

TABLE 2.

TILLER COUNTS IN AN ANNUAL RYEGRASS YIELD TRIAL NEAR MONITOR, OR, 1982.

CULTIVAR	# TILLERS/	STANDARD ERROR OF MEAN
WA-77	67	2.8
Gulf	61	2.3

69

3.2

Lemtal

TABLE 3.

PLANT MEASUREMENTS ON ANNUAL RYEGRASS SEED YIELD TRIALS NEAR MONITOR, OR, 1982.

CULTIVAR	PLANT HEIGHT CM	STANDARD ERROR OF MEAN	SPIKE LENGTH CM	STANDARD ERROR OF MEAN	FLAG LEAF LENGTH CM	STANDARD ERROR OF MEAN
WA-77	127	0.67	28.6	0.42	22.8	0.52
Gulf	149	1.10	29.4	0.56	23.0	0.46
Lemtal	117	0.80	25.1	0.49	23.6	0.45

TABLE 4.

PLANT MEASUREMENTS ON ANNUAL RYEGRASS
SEED YIELD TRIALS NEAR MONITOR, OR, 1982.

CULTIVAR	FLAG LEAF WIDTH MM	STANDARD ERROR OF MEAN	GLUME LENGTH MM	STANDARD ERROR OF MEAN	AWN LENGTH MM	STANDARD ERROR OF MEAN
WA-77	5.2	0.20	4.9	0.35	5.6	0.43
Gulf	8.2	0.26	7.3	0.62	7.9	0.46
Lemtal	6.1	0.24	4.1	0.30	4.1	0.33

TABLE 5.

OBSERVATIONS ON ANNUAL RYEGRASS
SEED YIELD TRIALS NEAR HUBBARD, OR, 1982.

CULTIVAR	SPIKELETS/ SPIKE	STANDARD ERROR OF MEAN	ANTHER & PURPLE	COLOR & YELLOW
WA-77	30.8	0.73	80	20
Gulf	27.4	0.91	70	30
Lemta1	26.5	0.95	40	60

TABLE 6.

# REGROWTH JULY 25, 1982 OF ANNUAL RYEGRASSES 1 MONTH AFTER MOWING IN TRIALS NEAR MONITOR, OR

CULTIVAR	# TILLERS/ 1 FT, ROW	STANDARD ERROR OF MEAN	TILLER HEIGHT CM	STANDARD ERROR OF MEAN
WA-77	75	4.8	64	2.1
Gulf	46	5.9	56	4.3

Table 7. Dry matter yield of rescuegrass and ryegrass, by variety and harvest date, Mississippi State, Mississippi, 1981-82.

		Dry Matt	er Yield		
		Harves		· · · · · · · · · · · · · · · · · · ·	
	2-23-82	3-19-82	5-5-82	5-28-82	Total
Ryegrass	<del></del>	1bs	s/acre		
TT-80 Marshall WA-77 Tandem Gulf Olympic	514 973 485 268 404 128	1849 2029 1878 1521 1743 1267	5549 4699 4612 4757 4547 5238	1889 1538 1655 1447 756 384	9801 9239 8630 7993 7450 7017
Rescuegrass					
ISI 80-1 ISI 80-4 ISI 79-1 ISI 78-1 ISI 80-3	150 136 209 132 121	1058 1125 1179 755 703	4717 4047 3884 4413 3642	1067 746 712 624 683	6992 6054 5984 5924 5149
lean LSD (.05)	320 144	1373 317	4555 1052	1045 368	7294 1489

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